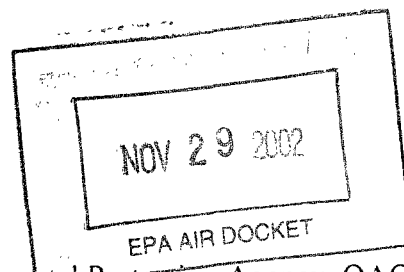




EASTERN RESEARCH GROUP, INC.



MEMORANDUM

TO: Jim Eddinger, U.S. Environmental Protection Agency, OAQPS (C439-01)

FROM: Christy Burlew, Eastern Research Group (ERG), Morrisville

DATE: October 2002

SUBJECT: Identification of Area Sources in the Industrial, Commercial, and Institutional Boilers and Process Heaters Databases

1.0 INTRODUCTION

This memorandum describes the analysis used to identify and remove area sources in the Industrial, Commercial, and Institutional Boilers and Indirect-fired Process Heaters database used in the development of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters. The following sections are included within this memorandum:

- 2.0 Background Information
- 3.0 Methodology for Identifying Area Source versus Major Source Boilers
- 4.0 Additional Assumptions
- 5.0 Results

2.0 BACKGROUND INFORMATION

Industrial, commercial and institutional boilers and process heaters are used in many different types of facilities including the chemical manufacturing industry, the pulp and paper industry, petroleum industry, furniture manufacturing industry, sugarcane industry, school and

university facilities, municipalities, and many others. The list of Standard Industrial Classification (SIC) codes that are included in the boiler and process heater databases illustrate the many different types of facilities utilizing them (See Appendix A).

Industrial, commercial and institutional boilers and process heaters were identified as source categories of HAP under section 112(c) of the Clean Air Act (the Act), to be regulated by a NESHAP under section 112(d) of the Act. For this NESHAP, the source category was defined to include only units located at major sources. A major source is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more a year. Area sources are those that do not meet the definition of major source. Boilers located at area sources will be considered in a separate rule-making. The boiler and process heaters database does not indicate which sources are at area or major sources. So additional analysis on the information contained in the database was required in order to remove area sources from subsequent analyses.

3.0 METHODOLOGY FOR IDENTIFYING AREA SOURCE VERSUS MAJOR SOURCE BOILERS

The analysis to determine which boilers and process heaters were located at area source facilities was done in a series of steps. Facilities with SIC codes that were assumed to be potential area source SIC codes were identified and then the boilers at these facilities were reviewed against a set of criteria to verify that these facilities were area sources. The sections below discuss this step-by-step analysis in detail.

3.1 Data Sources Used for Area Source Analysis

The analysis to identify potential area source facilities and boilers was done using the Inventory Database version 4.1 and the Survey Database version 3.0. For details on the data sources and development of the Inventory version 4.0 and 4.1 database, refer to the memorandum, *Development of the ICCR Inventory Database, Version 4.0 and 4.1*¹. For details on the data sources and development of the Survey version 3.0 database, refer to the

memorandum, *Data Entry and Quality Assurance Process in the Formation of the ICCR Survey Database 3.0*². For descriptions of the tables and fields in the Inventory database, refer to the memorandum, *Description of the ICCR Inventory Database, version 4.0 and 4.1*³. For descriptions of the tables and fields in the Survey database, refer to the memorandum, *Description of Fields in the ICCR Survey Database version 3.0*⁴. This area source analysis was conducted on the portion of the Inventory v4.1 database representing fossil fuels and other materials exempt from the ICR questionnaire. For more detail on the portion of the Inventory database that is considered exempt from the ICR questionnaire, refer to the memorandum, *Development of the Population Database for the Industrial/Commercial/Institutional Boiler and Process Heaters National Emission Standards for Hazardous Air Pollutants*⁵.

3.2 Identification of Facilities with Only Area Source SIC Codes

The SIC codes included in the Inventory and Survey databases for boilers and process heaters were reviewed to determine which SIC codes represent facilities that would typically only include area source facilities. This determination was made by considering industries where MACT standards are already in place and those that are planned, previous EPA experience with types of industries with boilers and process heaters, and engineering judgement. Appendix A summarizes all the SIC codes that were included in the Inventory and Survey databases and whether these SIC codes were determined to be area source or major source SIC codes.

The Inventory and the Survey databases both contain SIC codes for many of the facilities included in these databases. However, many facilities in these databases have multiple SIC codes associated with them. The databases were reviewed to identify and flag those facilities which only had SIC codes identified as potential area source SIC codes. Those facilities which had multiple SIC codes that included both potential area source SIC codes and non-area source SIC codes were assumed to contain major sources for the purposes of this analysis. No further review was conducted for facilities that had at least one non-area source SIC. These facilities were automatically included as part of the major source boiler and process heater database.

3.3 Review of Individual Boilers at Potential Area Source Facilities

For those facilities that were identified as having only potential area source SIC codes, the boilers located at these facilities were reviewed to determine if the individual boilers would trigger the major source thresholds of 25 tons per year of any combination of HAPs or 10 tons per year of any single HAP. This analysis was done by comparing the minimum size of boilers whose emissions would exceed the thresholds for major source status to the actual capacities of each boiler as indicated by the Inventory or Survey databases. Emissions were calculated using emission factors developed from the emissions database. Development of the emission factors is discussed in another memorandum. Table 3-1 presents the emission factors for total HAP and the largest emitting individual HAP for coal, wood, fuel oil, and gas fired units. Table 3-2 presents the boiler and process heater sizes that would trigger the 10 ton per year individual HAP or 25 ton per year total HAP levels. These minimum size cutoffs are specific to certain fuel types. For instance, the minimum size cutoff for a coal-fired boiler is lower than the minimum major source capacity cutoff for oil-fired boilers. Therefore, before these comparisons were done, the boilers in the databases were sorted according to fuel type so that the correct size cutoffs could be applied. For those facilities that had individual boilers that exceeded the minimum capacity for the fuel type necessary to make that boiler a major source, the entire facility and all the boilers located at that facility were considered to be major sources and were included in the boiler and process heater major source database.

3.4 Review of All Boilers at Potential Area Source Facilities

After the review was conducted for individual boilers located at potential area source facilities, the combined emissions from all boilers located at each individual facility were calculated. This analysis was done by reviewing the combined capacity of all the boilers by fuel type to determine if the combination of boilers would cause the facility to be considered a major source for HAP emissions. For instance, a facility with two coal boilers that each had a capacity of 25 MMBtu/hr would be considered a major source because the combination of these two boilers equals the minimum coal-fired boiler capacity necessary to create a major source of emissions. For facilities in which the combination of boilers resulted in emissions greater than

the major source thresholds, those facilities and all the boilers located at those facilities were included in the major source boiler database.

3.5 Review of All Combustion Devices at Potential Area Source Facilities

As indicated in the memorandum, *Development of the ICCR Inventory Database, Version 4.0 and 4.1¹*, the Inventory database developed under the ICCR included not only boilers but other types of combustion devices such as process heaters, incinerators, internal combustion engines, and turbines. The overall Inventory database was reviewed by facility ID to determine which facilities with boilers also had other types of combustion equipment co-located at the facility. This review was done because the combination of the combustion device equipment could result in emissions that would make the facility as a whole a major source facility. The focus of this analysis was identifying process heaters co-located with boilers at the potential area source facilities because there was relatively complete capacity information available for these units and the minimum size cutoffs for boilers could be applied to the process heaters as well. The incinerators, IC engines, and turbines co-located with boilers were also identified but there were no emission factors or major source size cutoffs available for these types of sources. Therefore, these types of devices were not included in the analysis. As discussed below, it is not expected that these types of sources would have much effect on the outcome of this analysis. Any facilities that had a combination of boilers and process heaters that resulted in combined capacities that would exceed major source thresholds were included in the boiler and process heater major source database.

4.0 ADDITIONAL ASSUMPTIONS

In the area source analysis, several assumptions were made for cases in which there was insufficient data to carry out the methodology exactly as described above in Section 3.0. The following sections describe the assumptions and rationale used in the development of the area source analysis.

4.1 Emission Factors Used to Calculate HAP Emissions from Other Combustion Devices

When reviewing all combustion devices that were co-located at a potential area source facility some assumptions were necessary to determine the amount of additional emissions created from the other types of combustion equipment besides boilers. For process heaters, the same emission factors and lower-size cutoffs used for boilers were applied to process heaters as well. The ICCR database indicated that there were sometimes engines and turbines present at some of these potential area source facilities. However, the ICCR inventory database listed the capacities of these devices in different units that were not easily converted to the same units as boiler capacities. No additional emissions were attributed to the facilities for these types of combustion devices. It was assumed that since engines and turbines are mostly natural gas-fired that little additional emissions would be created from these devices and they would have little effect on the outcome of this analysis. Also, there were very few potential area sources identified as having engines or turbines. There were also no additional emissions attributed to facilities in which incinerators were co-located with boilers because no emission factors or major source size cutoffs were available for these types of units. Also, it is expected that these units would have little effect on the outcome of this analysis because many of these units are small and there were not many co-located with boilers at the potential area source facilities.

4.2 Assumptions for Facilities for Which No SIC Codes Were Available

Initially, any facilities in the Inventory or Survey database for which no SIC codes were available were assumed to be major sources and were included in the major source database. During refinement of the boiler major source database, the estimated fuel consumptions from the major source database were compared to the fuel consumption data reported in the 1994 DOE Manufacturing Fuel Consumption Report, Table A9 (See Appendix B). For some fuel types, particularly fuel oil, this comparison showed that the major source database might include more boilers and facilities than actually exist in the nation. One of the reasons for this result was determined to be that many facilities burning fuel oil and other fossil fuels were those facilities that were initially assumed to be major sources because no SIC information was available. In order to refine the area source determination, the facility names and facility descriptions in the

population database were reviewed in an attempt to classify these facilities into certain SIC codes. Any facilities that were identified as falling into one of the potential area source SIC codes were analyzed in the same manner as discussed in Section 3.0. Those facilities that did not have boilers or other combustion devices that would make them a major source were removed from the major source database. During this second analysis, the only facilities removed as area sources were those facilities for which there was enough information to determine that the facility would be included under one of the area source SIC codes. Approximately 1,700 additional boilers assumed to be located at area sources were removed from the major source database as a result of this review.

Assumptions for Boilers with Potential Area Source SICs but No Capacity Information
Many of the boilers in the inventory database did not have the capacity information available that was necessary to determine if the boilers were above the lower-size cutoff to be considered a major source by themselves. Also, in some cases, the capacity information available in the database could not be converted to MMBtu/hr units. In these instances, if the facility at which the boiler was located only had potential area source SIC codes, then the boilers and the facility were assumed to be area sources and were removed from the major source database.

4.4 Assumptions for Using the SCC for Capacity Information

Many boilers in the Inventory database did not have specific capacity information available in units of MMBtu/hr. However, many of these boilers without capacity information did have Source Classification Codes (SCCs) associated with them in which the SCC description indicates a boiler capacity range, such as 10-100 MMBtu/hr. In these cases, the SCC information from the database was used in the assessment of area sources by using the lower end of the provided range. This assumption was used in order to provide a conservative estimate of a facility's total capacity for the purposes of identifying major sources.

4.5 Assumptions for Which Boiler Fuel Type Applied to Co-fired Boilers

Many boilers in the Inventory and Survey databases are co-fired with several different fuel types. However, the area source analysis and the lower-size cutoffs for boilers becoming

major sources are based on specific single fuel types. Some assumptions were made regarding which lower-size cutoffs and emission factors applied to these co-fired boilers. Generally, the same hierarchy used to assign boilers to models was used in determining which fuel type was applicable for assessing the lower size cutoffs for major sources. For more detail on the hierarchy of assigning co-fired boilers to models, refer to the memorandum, *Development of Model Units for the Industrial/Commercial/Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants*⁶. As an example, the hierarchy results in a boiler burning coal in combination with another material to be reviewed according to the lower size cutoff for a coal-fired boiler. There were a few exceptions for the survey database boilers. The survey database provides information about the percentage fuel input for each co-fired material. For approximately ten boilers that were close to the lower size capacity cutoffs, the percentage fuel input of the coal or oil was 10 percent or less of the total and these boilers were assumed to be area source boilers because the majority of fuel input was natural gas.

5.0 RESULTS

The step-by-step analysis to identify area sources described in this memo resulted in the identification of approximately 23,000 boilers assumed to be located at area source facilities. These boilers were removed from the major source database used for subsequent analysis for the Industrial, Commercial, and Institutional Boiler and Process Heater NESHAP. For further description of the major source database, refer to the memorandum *Development of the Population Database for the Industrial/Commercial/Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants*⁵.

6.0 REFERENCES

1. Stephanie Finn and Jason Huckaby, ERG. Memorandum to Fred Porter, Bill Maxwell, and Jim Eddinger, U.S. Environmental Protection Agency, OAQPS. *Development of the ICCR Inventory Database, Version 4.0 and 4.1.* September 9, 1999.
2. Stephanie Finn and Linda Fuller, ERG. Memorandum to Fred Porter and Jim Eddinger, U.S. Environmental Protection Agency, OAQPS. *Data Entry and Quality Assurance Process in the Formation of the ICCR Survey Database 3.0.* September 13, 1999.
3. Jeanette Alvis, ERG. Memorandum to Bill Maxwell and Fred Porter, U.S. Environmental Protection Agency, OAQPS. *Description of the ICCR Inventory Database, Versions 4.0 and 4.1.* September 3, 1999.
4. David Rhodes, ERG. Memorandum to Fred Porter and Jim Eddinger, U.S. Environmental Protection Agency, OAQPS. *Description of Fields in the ICCR Survey Database Version 3.0.* September 8, 1999.
5. Jeanette Alvis and Christy Burlew, ERG. Memorandum to Jim Eddinger, U.S. Environmental Protection Agency, OAQPS. *Development of the Population Database for the Industrial/ Commercial/Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants.* October, 2002.
6. Jeanette Alvis, Christy Burlew, and Roy Oommen, ERG. Memorandum to Jim Eddinger, U.S. Environmental Protection Agency, OAQPS. *Development of Model Units for the Industrial/Commercial/Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants.* October, 2002.

Table 3-1. Emission Factors Used to Determine Total Combined HAP Emissions from Multiple Units at a Facility to Identify Major Sources

Unit Type	Fuel Type	Pollutant	Emission Factor (lb/MMBtu capacity)
Boiler or Process Heater	Coal	Total HAP Emissions	0.56
Boiler or Process Heater	Coal	Hydrogen Chloride	0.54
Boiler or Process Heater	Wood	Total HAP Emissions	0.02
Boiler or Process Heater	Wood	Formaldehyde	0.01
Boiler or Process Heater	Fuel Oil	Total HAP Emissions	0.004
Boiler or Process Heater	Fuel Oil	Manganese	0.0000005
Boiler or Process Heater	Natural Gas	Total HAP Emissions	0.0004
Boiler or Process Heater	Natural Gas	Formaldehyde	0.0003

Table 3-2. Size Cutoffs Used to Determine Single Units that Exceed Major Source Thresholds

Unit Type	Fuel Type	Major Source Threshold
Boiler or Process Heater	Coal	heat input capacity \geq 50 MMBtu/hr considered a major source
Boiler or Process Heater	Wood	heat input capacity \geq 250 MMBtu/hr considered a major source
Boiler or Process Heater	Fuel Oil	heat input capacity \geq 1,800 MMBtu/hr considered a major source
Boiler or Process Heater	Natural Gas	heat input capacity \geq 8,000 MMBtu/hr considered a major source

Appendix A

Identification of SIC Codes for Boilers at Area Sources

(See Excel spreadsheet “Areameappa-SIC.xls”)

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
0133	Agricultural Production - Crops, Field Crops, except Cash Grains, Sugarcane and sugar beets	X
0173	Agricultural Production - Crops, Fruits and Tree Nuts, Tree nuts	X
0181	Agricultural Production - Crops, Horticultural Specialties, Ornamental nursery products	X
1002		
1011	Metal Mining, Iron Ores, Iron ores	
1021	Metal Mining, Copper Ores, Copper ores	
1031	Metal Mining, Lead and Zinc Ores, Lead and zinc ores	
1041	Metal Mining, Gold and Silver Ores, Gold ores	
1061	Metal Mining, Ferroalloy Ores, Except Vanadium, Ferroalloy ores, except vanadium	
1081	Metal Mining, Metal Mining Services, Metal mining services	
1094	Metal Mining, Miscellaneous Metal Ores, Uranium-radium-vanadium ores	
1099	Metal Mining, Miscellaneous Metal Ores, Metal ores, nec	
1211	Coal Mining	
1221	Coal Mining, Bituminous Coal and Lignite Mining, Bituminous coal and lignite--surface	
1222	Coal Mining, Bituminous Coal and Lignite Mining, Bituminous coal--underground	
1225	Coal Mining	
1231	Coal Mining, Anthracite Mining, Anthracite mining	
1311	Oil And Gas Extraction, Crude Petroleum And Natural Gas, Crude petroleum and natural gas	
1320	Oil And Gas Extraction	
1321	Oil And Gas Extraction, Natural Gas Liquids, Natural gas liquids	
1322	Oil And Gas Extraction	
1381	Oil And Gas Extraction, Oil and Gas Field Services, Drilling oil and gas wells	
1382	Oil And Gas Extraction, Oil and Gas Field Services, Oil and gas exploration services	
1389	Oil And Gas Extraction, Oil and Gas Field Services, Oil and gas field services, nec	
1411	Nonmetallic Minerals, Except Fuels, Dimension Stone, Dimension stone	X
1422	Nonmetallic Minerals, Except Fuels, Crushed and Broken Stone, Crushed and broken limestone	X
1429	Nonmetallic Minerals, Except Fuels, Crushed and Broken Stone, Crushed and broken stone, nec	X
1442	Nonmetallic Minerals, Except Fuels, Sand and Gravel, Construction sand and gravel	X
1446	Nonmetallic Minerals, Except Fuels, Sand and Gravel, Industrial sand	X
1452	Nonmetallic Minerals	
1455	Nonmetallic Minerals, Except Fuels, Clay, Ceramic, & Refractory Minerals, Kaolin and ball clay	
1459	Nonmetallic Minerals, Except Fuels, Clay, Ceramic, & Refractory Minerals, Clay and related minerals, nec	
1474	Nonmetallic Minerals, Except Fuels, Chemical and Fertilizer Minerals, Potash, soda, and borate minerals	
1475	Nonmetallic Minerals, Except Fuels, Chemical and Fertilizer Minerals, Phosphate rock	
1476	Nonmetallic Minerals	
1477	Nonmetallic Minerals	
1479	Nonmetallic Minerals, Except Fuels, Chemical and Fertilizer Minerals, Chemical and fertilizer mining, nec	
1499	Nonmetallic Minerals, Except Fuels, Miscellaneous Nonmetallic Minerals, Miscellaneous nonmetallic minerals	
1541	General Building Contractors, Nonresidential Building Construction, Industrial buildings and warehouses	X
1542	General Building Contractors, Nonresidential Building Construction, Nonresidential construction, nec	X
1611	Heavy Construction, Ex. Building, Highway and Street Construction, Highway and street construction	X
1622	Heavy Construction, Ex. Building, Heavy Construction, except Highway, Bridge, tunnel, & elevated highway	X
1623	Heavy Construction, Ex. Building, Heavy Construction, except Highway, Water, sewer, and utility lines	X
1629	Heavy Construction, Ex. Building, Heavy Construction, except Highway, Heavy construction, nec	X
1721	Special Trade Contractors, Painting and Paper Hanging, Painting and paper hanging	X
1741	Special Trade Contractors, Masonry, Stonework, and Plastering, Masonry and other stone work	X
1794	Special Trade Contractors, Misc. Special Trade Contractors, Excavation work	X
1796	Special Trade Contractors, Misc. Special Trade Contractors, Installing building equipment, nec	X
1799	Special Trade Contractors, Misc. Special Trade Contractors, Special trade contractors, nec	X
20	Food And Kindred Products	X
2000	Food And Kindred Products	X
2010	Food And Kindred Products	X
2011	Food And Kindred Products, Meat Products, Meat packing plants	X
2013	Food And Kindred Products, Meat Products, Sausages and other prepared meats	X
2015	Food And Kindred Products, Meat Products, Poultry slaughtering and processing	X
2016	Food And Kindred Products	X
2017	Food And Kindred Products	X
2020	Food And Kindred Products	X
2021	Food And Kindred Products, Dairy Products, Creamery butter	X
2022	Food And Kindred Products, Dairy Products, Cheese, natural and processed	X
2023	Food And Kindred Products, Dairy Products, Dry, condensed, evaporated products	X
2024	Food And Kindred Products, Dairy Products, Ice cream and frozen desserts	X
2026	Food And Kindred Products, Dairy Products, Fluid milk	X
2032	Food And Kindred Products, Preserved Fruits and Vegetables, Canned specialties	X
2033	Food And Kindred Products, Preserved Fruits and Vegetables, Canned fruits and vegetables	X
2034	Food And Kindred Products, Preserved Fruits and Vegetables, Dehydrated fruits, vegetables, soups	X
2035	Food And Kindred Products, Preserved Fruits and Vegetables, Pickles, sauces, and salad dressings	X
2037	Food And Kindred Products, Preserved Fruits and Vegetables, Frozen fruits and vegetables	X

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
2038	Food And Kindred Products, Preserved Fruits and Vegetables, Frozen specialties, nec	X
2041	Food And Kindred Products, Grain Mill Products, Flour and other grain mill products	X
2042	Food And Kindred Products	X
2043	Food And Kindred Products, Grain Mill Products, Cereal breakfast foods	X
2044	Food And Kindred Products, Grain Mill Products, Rice milling	X
2045	Food And Kindred Products, Grain Mill Products, Prepared flour mixes and doughs	X
2046	Food And Kindred Products, Grain Mill Products, Wet corn milling	X
2047	Food And Kindred Products, Grain Mill Products, Dog and cat food	X
2048	Food And Kindred Products, Grain Mill Products, Prepared feeds, nec	X
2050	Food And Kindred Products	X
2051	Food And Kindred Products, Bakery Products, Bread, cake, and related products	X
2052	Food And Kindred Products, Bakery Products, Cookies and crackers	X
2053	Food And Kindred Products, Bakery Products, Frozen bakery products, except bread	X
2061	Food And Kindred Products, Sugar and Confectionery Products, Raw cane sugar	X
2062	Food And Kindred Products, Sugar and Confectionery Products, Cane sugar refining	X
2063	Food And Kindred Products, Sugar and Confectionery Products, Beet sugar	X
2064	Food And Kindred Products, Sugar and Confectionery Products, Candy & other confectionery products	X
2065	Food And Kindred Products	X
2066	Food And Kindred Products, Sugar and Confectionery Products, Chocolate & cocoa products	X
2067	Food And Kindred Products, Sugar and Confectionery Products, Chewing gum	X
2068	Food And Kindred Products, Sugar and Confectionery Products, Salted & roasted nuts & seeds	X
2074	Food And Kindred Products, Fats and Oils, Cottonseed oil mills	
2075	Food And Kindred Products, Fats and Oils, Soybean oil mills	
2076	Food And Kindred Products, Fats and Oils, Vegetable oil mills, nec	
2077	Food And Kindred Products, Fats and Oils, Animal and marine fats and oils	
2079	Food And Kindred Products, Fats and Oils, Edible fats and oils, nec	
2082	Food And Kindred Products, Beverages, Malt beverages	X
2083	Food And Kindred Products, Beverages, Malt	X
2084	Food And Kindred Products, Beverages, Wines, brandy, and brandy spirits	X
2085	Food And Kindred Products, Beverages, Distilled and blended liquors	X
2086	Food And Kindred Products, Beverages, Bottled and canned soft drinks	X
2087	Food And Kindred Products, Beverages, Flavoring extracts and syrups, nec	X
2091	Food And Kindred Products, Misc. Food and Kindred Products, Canned and cured fish and seafoods	X
2092	Food And Kindred Products, Misc. Food and Kindred Products, Fresh or frozen prepared fish	X
2093	Food And Kindred Products	X
2095	Food And Kindred Products, Misc. Food and Kindred Products, Roasted coffee	X
2096	Food And Kindred Products, Misc. Food and Kindred Products, Potato chips and similar snacks	X
2097	Food And Kindred Products, Misc. Food and Kindred Products, Manufactured ice	X
2098	Food And Kindred Products, Misc. Food and Kindred Products, Macaroni and spaghetti	X
2099	Food And Kindred Products, Misc. Food and Kindred Products, Food preparations, nec	X
2111	Tobacco Products, Cigarettes, Cigarettes	
2121	Tobacco Products, Cigars, Cigars	
2131	Tobacco Products, Chewing and Smoking Tobacco, Chewing and smoking tobacco	
2135	Tobacco Products	
2141	Tobacco Products, Tobacco Stemming And Redrying, Tobacco stemming and redrying	
2211	Textile Mill Products, Broadwoven Fabric Mills, Cotton, Broadwoven fabric mills, cotton	
2221	Textile Mill Products, Broadwoven Fabric Mills, Manmade, Broadwoven fabric mills, manmade	
2231	Textile Mill Products, Broadwoven Fabric Mills, Wool, Broadwoven fabric mills, wool	
2241	Textile Mill Products, Narrow Fabric Mills, Narrow fabric mills	
2251	Textile Mill Products, Knitting Mills, Women's hosiery, except socks	
2252	Textile Mill Products, Knitting Mills, Hosiery, nec	
2253	Textile Mill Products, Knitting Mills, Knit outerwear mills	
2254	Textile Mill Products, Knitting Mills, Knit underwear mills	
2257	Textile Mill Products, Knitting Mills, Weft knit fabric mills	
2258	Textile Mill Products, Knitting Mills, Lace and warp knit fabric mills	
2259	Textile Mill Products, Knitting Mills, Knitting mills, nec	
2261	Textile Mill Products, Textile Finishing, except Wool, Finishing plants, cotton	
2262	Textile Mill Products, Textile Finishing, except Wool, Finishing plants, manmade	
2269	Textile Mill Products, Textile Finishing, except Wool, Finishing plants, nec	
2271	Textile Mill Products	
2272	Textile Mill Products	
2273	Textile Mill Products, Carpets and Rugs, Carpets and rugs	
2281	Textile Mill Products, Yarn and Thread Mills, Yarn spinning mills	
2282	Textile Mill Products, Yarn and Thread Mills, Throwing and winding mills	
2283	Textile Mill Products	
2284	Textile Mill Products, Yarn and Thread Mills, Thread mills	
2291	Textile Mill Products	
2293	Textile Mill Products	

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SIC Code	SIC Description	Area Source?
2295	Textile Mill Products, Miscellaneous Textile Goods, Coated fabrics, not rubberized	
2296	Textile Mill Products, Miscellaneous Textile Goods, Tire cord and fabrics	
2297	Textile Mill Products, Miscellaneous Textile Goods, Nonwoven fabrics	
2298	Textile Mill Products, Miscellaneous Textile Goods, Cordage and twine	
2299	Textile Mill Products, Miscellaneous Textile Goods, Textile goods, nec	
2311	Apparel And Other Textile Products, Men's and Boys' Suits and Coats, Men's & boys' suits & coats	X
2313	Apparel And Other Textile Products	X
2321	Apparel And Other Textile Products, Men's and Boys' Furnishings, Men's & boys' shirts	X
2322	Apparel And Other Textile Products, Men's and Boys' Furnishings, Men's & boys' underwear & nightwear	X
2325	Apparel And Other Textile Products, Men's and Boys' Furnishings, Men's & boys' trousers & slacks	X
2326	Apparel And Other Textile Products, Men's and Boys' Furnishings, Men's & boys' work clothing	X
2327	Apparel And Other Textile Products	X
2328	Apparel And Other Textile Products	X
2329	Apparel And Other Textile Products, Men's and Boys' Furnishings, Men's & boys' clothing, nec	X
2331	Apparel And Other Textile Products, Women's and Misses' Outerwear, Women's & misses' blouses & shirts	X
2335	Apparel And Other Textile Products, Women's and Misses' Outerwear, Women's, & misses' dresses	X
2337	Apparel And Other Textile Products, Women's and Misses' Outerwear, Women's & misses' suits and coats	X
2339	Apparel And Other Textile Products, Women's and Misses' Outerwear, Women's & misses' outerwear, nec	X
2341	Apparel And Other Textile Products, Women's and Children's Undergarments, Women's and children's underwear	X
2342	Apparel And Other Textile Products, Women's and Children's Undergarments, Bras, girdles, and allied garments	X
2352	Apparel And Other Textile Products	X
2353	Apparel And Other Textile Products, Hats, Caps, and Millinery, Hats, caps, and millinery	X
2361	Apparel And Other Textile Products, Girls' and Children's Outerwear, Girls' & children's dresses, blouses	X
2369	Apparel And Other Textile Products, Girls' and Children's Outerwear, Girls' & children's outerwear, nec	X
2371	Apparel And Other Textile Products, Fur Goods, Fur goods	X
2384	Apparel And Other Textile Products, Miscellaneous Apparel and Accessories, Robes and dressing gowns	X
2388	Apparel And Other Textile Products	X
2389	Apparel And Other Textile Products, Miscellaneous Apparel and Accessories, Apparel and accessories, nec	X
2391	Apparel And Other Textile Products, Misc. Fabricated Textile Products, Curtains and draperies	X
2392	Apparel And Other Textile Products, Misc. Fabricated Textile Products, Housefurnishings, nec	X
2393	Apparel And Other Textile Products, Misc. Fabricated Textile Products, Textile bags	X
2394	Apparel And Other Textile Products, Misc. Fabricated Textile Products, Canvas and related products	X
2396	Apparel And Other Textile Products, Misc. Fabricated Textile Products, Automotive and apparel trimmings	X
2399	Apparel And Other Textile Products, Misc. Fabricated Textile Products, Fabricated textile products, nec	X
24	Lumber And Wood Products	X
2400	Lumber And Wood Products	X
2411	Lumber And Wood Products, Logging, Logging	X
2415	Lumber And Wood Products	X
242	Lumber And Wood Products, Sawmills and Planing Mills	X
2420	Lumber And Wood Products	X
2421	Lumber And Wood Products, Sawmills and Planing Mills, Sawmills & planing mills, general	X
2426	Lumber And Wood Products, Sawmills and Planing Mills, Hardwood dimension & flooring mills	
2429	Lumber And Wood Products, Sawmills and Planing Mills, Special product sawmills, nec	
2430	Lumber And Wood Products	
2431	Lumber And Wood Products, Millwork, Plywood & Structural Members, Millwork	
2432	Lumber And Wood Products	
2434	Lumber And Wood Products, Millwork, Plywood & Structural Members, Wood kitchen cabinets	
2435	Lumber And Wood Products, Millwork, Plywood & Structural Members, Hardwood veneer and plywood	
2436	Lumber And Wood Products, Millwork, Plywood & Structural Members, Softwood veneer and plywood	
2439	Lumber And Wood Products, Millwork, Plywood & Structural Members, Structural wood members, nec	
2440	Lumber And Wood Products	
2441	Lumber And Wood Products, Wood Containers, Nailed wood boxes and shook	
2448	Lumber And Wood Products, Wood Containers, Wood pallets and skids	
2449	Lumber And Wood Products, Wood Containers, Wood containers, nec	
2451	Lumber And Wood Products, Wood Buildings and Mobile Homes, Mobile homes	
2452	Lumber And Wood Products, Wood Buildings and Mobile Homes, Prefabricated wood buildings	
2491	Lumber And Wood Products, Miscellaneous Wood Products, Wood preserving	
2492	Lumber And Wood Products	
2493	Lumber And Wood Products, Miscellaneous Wood Products, Reconstituted wood products	
2498	Lumber And Wood Products	
2499	Lumber And Wood Products, Miscellaneous Wood Products, Wood products, nec	
25	Furniture And Fixtures	
2500	Furniture And Fixtures	
2511	Furniture And Fixtures, Household Furniture, Wood household furniture	
2512	Furniture And Fixtures, Household Furniture, Upholstered household furniture	
2514	Furniture And Fixtures, Household Furniture, Metal household furniture	
2515	Furniture And Fixtures, Household Furniture, Mattresses and bedsprings	
2517	Furniture And Fixtures, Household Furniture, Wood TV and radio cabinets	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
2519	Furniture And Fixtures, Household Furniture, Household furniture, nec	
2521	Furniture And Fixtures, Office Furniture, Wood office furniture	
2522	Furniture And Fixtures, Office Furniture, Office furniture, except wood	
2531	Furniture And Fixtures, Public Building & Related Furniture, Public building & related furniture	
2534	Furniture And Fixtures	
2541	Furniture And Fixtures, Partitions and Fixtures, Wood partitions and fixtures	
2542	Furniture And Fixtures, Partitions and Fixtures, Partitions and fixtures, except wood	
2591	Furniture And Fixtures, Miscellaneous Furniture and Fixtures, Drapery hardware, blinds and shades	
2592	Furniture And Fixtures	
2599	Furniture And Fixtures, Miscellaneous Furniture and Fixtures, Furniture and fixtures, nec	
26	Paper And Allied Products	
2611	Paper And Allied Products, Pulp Mills, Pulp mills	
2614	Paper And Allied Products	
2621	Paper And Allied Products, Paper Mills, Paper mills	
2631	Paper And Allied Products, Paperboard Mills, Paperboard mills	
2641	Paper And Allied Products	
2642	Paper And Allied Products	
2643	Paper And Allied Products	
2646	Paper And Allied Products	
2647	Paper And Allied Products	
2648	Paper And Allied Products	
2649	Paper And Allied Products	
2651	Paper And Allied Products	
2652	Paper And Allied Products, Paperboard Containers and Boxes, Setup paperboard boxes	
2653	Paper And Allied Products, Paperboard Containers and Boxes, Corrugated & solid fiber boxes	
2654	Paper And Allied Products	
2655	Paper And Allied Products, Paperboard Containers and Boxes, Fiber cans, drums & similar products	
2656	Paper And Allied Products, Paperboard Containers and Boxes, Sanitary food containers	
2657	Paper And Allied Products, Paperboard Containers and Boxes, Folding paperboard boxes	
2661	Paper And Allied Products	
2671	Paper And Allied Products, Misc. Converted Paper Products, Paper coated & laminated, packaging	
2672	Paper And Allied Products, Misc. Converted Paper Products, Paper coated & laminated, nec	
2673	Paper And Allied Products, Misc. Converted Paper Products, Bags: plastics, laminated, & coated	
2674	Paper And Allied Products, Misc. Converted Paper Products, Bags: uncoated paper & multiwall	
2675	Paper And Allied Products, Misc. Converted Paper Products, Die-cut paper & board	
2676	Paper And Allied Products, Misc. Converted Paper Products, Sanitary paper products	
2677	Paper And Allied Products, Misc. Converted Paper Products, Envelopes	
2679	Paper And Allied Products, Misc. Converted Paper Products, Converted paper products, nec	
2681	Paper And Allied Products	
2700	Printing And Publishing	
2710	Printing And Publishing	
2711	Printing And Publishing, Newspapers, Newspapers	
2721	Printing And Publishing, Periodicals, Periodicals	
273	Printing And Publishing, Books	
2731	Printing And Publishing, Books, Book publishing	
2732	Printing And Publishing, Books, Book printing	
2741	Printing And Publishing, Miscellaneous Publishing, Miscellaneous publishing	
2750	Printing And Publishing	
2751	Printing And Publishing	
2752	Printing And Publishing, Commercial Printing, Commercial printing, lithographic	
2754	Printing And Publishing, Commercial Printing, Commercial printing, gravure	
2759	Printing And Publishing, Commercial Printing, Commercial printing, nec	
2761	Printing And Publishing, Manifold Business Forms, Manifold business forms	
2771	Printing And Publishing, Greeting Cards, Greeting cards	
2782	Printing And Publishing, Blankbooks and Bookbinding, Blankbooks and looseleaf binders	
2789	Printing And Publishing, Blankbooks and Bookbinding, Bookbinding and related work	
2791	Printing And Publishing, Printing Trade Services, Typesetting	
2795	Printing And Publishing	
2796	Printing And Publishing, Printing Trade Services, Platemaking services	
2800	Chemicals And Allied Products	
2812	Chemicals And Allied Products, Industrial Inorganic Chemicals, Alkalies and chlorine	
2813	Chemicals And Allied Products, Industrial Inorganic Chemicals, Industrial gases	
2816	Chemicals And Allied Products, Industrial Inorganic Chemicals, Inorganic pigments	
2819	Chemicals And Allied Products, Industrial Inorganic Chemicals, Industrial inorganic chemicals, nec	
2821	Chemicals And Allied Products, Plastics Materials and Synthetics, Plastics materials and resins	
2822	Chemicals And Allied Products, Plastics Materials and Synthetics, Synthetic rubber	
2823	Chemicals And Allied Products, Plastics Materials and Synthetics, Cellulosic manmade fibers	
2824	Chemicals And Allied Products, Plastics Materials and Synthetics, Organic fibers, noncellulosic	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
2831	Chemicals And Allied Products	
2833	Chemicals And Allied Products, Drugs, Medicinals and botanicals	
2834	Chemicals And Allied Products, Drugs, Pharmaceutical preparations	
2835	Chemicals And Allied Products, Drugs, Diagnostic substances	
2836	Chemicals And Allied Products, Drugs, Biological products exc. diagnostic	
2841	Chemicals And Allied Products, Soap, Cleaners, and Toilet Goods, Soap and other detergents	
2842	Chemicals And Allied Products, Soap, Cleaners, and Toilet Goods, Polishes and sanitation goods	
2843	Chemicals And Allied Products, Soap, Cleaners, and Toilet Goods, Surface active agents	
2844	Chemicals And Allied Products, Soap, Cleaners, and Toilet Goods, Toilet preparations	
2851	Chemicals And Allied Products, Paints and Allied Products, Paints and allied products	
2861	Chemicals And Allied Products, Industrial Organic Chemicals, Gum and wood chemicals	
2864	Chemicals And Allied Products	
2865	Chemicals And Allied Products, Industrial Organic Chemicals, Cyclic crudes and intermediates	
2869	Chemicals And Allied Products, Industrial Organic Chemicals, Industrial organic chemicals, nec	
2873	Chemicals And Allied Products, Agricultural Chemicals, Nitrogenous fertilizers	
2874	Chemicals And Allied Products, Agricultural Chemicals, Phosphatic fertilizers	
2875	Chemicals And Allied Products, Agricultural Chemicals, Fertilizers, mixing only	
2879	Chemicals And Allied Products, Agricultural Chemicals, Agricultural chemicals, nec	
2891	Chemicals And Allied Products, Miscellaneous Chemical Products, Adhesives and sealants	
2892	Chemicals And Allied Products, Miscellaneous Chemical Products, Explosives	
2893	Chemicals And Allied Products, Miscellaneous Chemical Products, Printing ink	
2895	Chemicals And Allied Products, Miscellaneous Chemical Products, Carbon black	
2899	Chemicals And Allied Products, Miscellaneous Chemical Products, Chemical preparations, nec	
2900	Petroleum And Coal Products	
2905	Petroleum And Coal Products	
2911	Petroleum And Coal Products, Petroleum Refining, Petroleum refining	
2915	Petroleum And Coal Products	
2929	Petroleum And Coal Products	
2950	Petroleum And Coal Products	
2951	Petroleum And Coal Products, Asphalt Paving and Roofing Materials, Asphalt paving mixtures and blocks	
2952	Petroleum And Coal Products, Asphalt Paving and Roofing Materials, Asphalt felts and coatings	
2992	Petroleum And Coal Products, Misc. Petroleum and Coal Products, Lubricating oils and greases	
2999	Petroleum And Coal Products, Misc. Petroleum and Coal Products, Petroleum and coal products, nec	
3011	Rubber And Misc. Plastics Products, Tires and Inner Tubes, Tires and inner tubes	
3021	Rubber And Misc. Plastics Products, Rubber and Plastics Footwear, Rubber and plastics footwear	
3031	Rubber And Misc. Plastic Products	
3041	Rubber And Misc. Plastic Products	
3052	Rubber And Misc. Plastics Products, Hose & Belting & Gaskets & Packing, Rubber & plastics hose & belting	
3053	Rubber And Misc. Plastics Products, Hose & Belting & Gaskets & Packing, Gaskets, packing & sealing devices	
3061	Rubber And Misc. Plastics Products, Fabricated Rubber Products, Nec, Mechanical rubber goods	
3069	Rubber And Misc. Plastics Products, Fabricated Rubber Products, Nec, Fabricated rubber products, nec	
3079	Miscellaneous Plastic Products	
3081	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Unsupported plastics film & sheet	
3082	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Unsupported plastics profile shapes	
3083	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Laminated plastics plate & sheet	
3084	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Plastics pipe	
3085	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Plastics bottles	
3086	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Plastics foam products	
3087	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Custom compound purchased resins	
3088	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Plastics plumbing fixtures	
3089	Rubber And Misc. Plastics Products, Miscellaneous Plastics Products, Nec, Plastics products, nec	
3098	Rubber And Misc. Plastic Products	
3111	Leather And Leather Products, Leather Tanning and Finishing, Leather tanning and finishing	
3131	Leather And Leather Products, Footwear Cut Stock, Footwear cut stock	
3143	Leather And Leather Products, Footwear, except Rubber, Men's footwear, except athletic	
3144	Leather And Leather Products, Footwear, except Rubber, Women's footwear, except athletic	
3149	Leather And Leather Products, Footwear, except Rubber, Footwear, except rubber, nec	
3151	Leather And Leather Products, Leather Gloves and Mittens, Leather gloves and mittens	
3161	Leather And Leather Products, Luggage, Luggage	
3171	Leather And Leather Products, Handbags and Personal Leather Goods, Women's handbags and purses	
3172	Leather And Leather Products, Handbags and Personal Leather Goods, Personal leather goods, nec	
3199	Leather And Leather Products, Leather Goods, Nec, Leather goods, nec	
3200	Stone, Clay, And Glass Products	
3211	Stone, Clay, And Glass Products, Flat Glass, Flat glass	
3212	Stone, Clay, And Glass Products	
3221	Stone, Clay, And Glass Products, Glass and Glassware, Pressed Or Blown, Glass containers	
3229	Stone, Clay, And Glass Products, Glass and Glassware, Pressed Or Blown, Pressed and blown glass, nec	
3231	Stone, Clay, And Glass Products, Products Of Purchased Glass, Products of purchased glass	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
3241	Stone, Clay, And Glass Products, Cement, Hydraulic, Cement, hydraulic	
3251	Stone, Clay, And Glass Products, Structural Clay Products, Brick and structural clay tile	
3253	Stone, Clay, And Glass Products, Structural Clay Products, Ceramic wall and floor tile	
3255	Stone, Clay, And Glass Products, Structural Clay Products, Clay refractories	
3261	Stone, Clay, And Glass Products, Pottery and Related Products, Vitreous plumbing fixtures	
3262	Stone, Clay, And Glass Products, Pottery and Related Products, Vitreous china table & kitchenware	
3263	Stone, Clay, And Glass Products, Pottery and Related Products, Semivitreous table & kitchenware	
3264	Stone, Clay, And Glass Products, Pottery and Related Products, Porcelain electrical supplies	
3269	Stone, Clay, And Glass Products, Pottery and Related Products, Pottery products, nec	
3271	Stone, Clay, And Glass Products, Concrete, Gypsum, and Plaster Products, Concrete block and brick	
3272	Stone, Clay, And Glass Products, Concrete, Gypsum, and Plaster Products, Concrete products, nec	
3273	Stone, Clay, And Glass Products, Concrete, Gypsum, and Plaster Products, Ready-mixed concrete	
3274	Stone, Clay, And Glass Products, Concrete, Gypsum, and Plaster Products, Lime	
3275	Stone, Clay, And Glass Products, Concrete, Gypsum, and Plaster Products, Gypsum products	
3281	Stone, Clay, And Glass Products, Cut Stone and Stone Products, Cut stone and stone products	
3291	Stone, Clay, And Glass Products, Misc. Nonmetallic Mineral Products, Abrasive products	
3292	Stone, Clay, And Glass Products, Misc. Nonmetallic Mineral Products, Asbestos products	
3293	Stone, Clay, And Glass Products	
3295	Stone, Clay, And Glass Products, Misc. Nonmetallic Mineral Products, Minerals, ground or treated	
3296	Stone, Clay, And Glass Products, Misc. Nonmetallic Mineral Products, Mineral wool	
3297	Stone, Clay, And Glass Products, Misc. Nonmetallic Mineral Products, Nonclay refractories	
3299	Stone, Clay, And Glass Products, Misc. Nonmetallic Mineral Products, Nonmetallic mineral products, nec	
3312	Primary Metal Industries, Blast Furnace and Basic Steel Products, Blast furnaces and steel mills	
3313	Primary Metal Industries, Blast Furnace and Basic Steel Products, Electrometallurgical products	
3315	Primary Metal Industries, Blast Furnace and Basic Steel Products, Steel wire and related products	
3316	Primary Metal Industries, Blast Furnace and Basic Steel Products, Cold finishing of steel shapes	
3317	Primary Metal Industries, Blast Furnace and Basic Steel Products, Steel pipe and tubes	
3321	Primary Metal Industries, Iron and Steel Foundries, Gray and ductile iron foundries	
3322	Primary Metal Industries, Iron and Steel Foundries, Malleable iron foundries	
3324	Primary Metal Industries, Iron and Steel Foundries, Steel investment foundries	
3325	Primary Metal Industries, Iron and Steel Foundries, Steel foundries, nec	
3331	Primary Metal Industries, Primary Nonferrous Metals, Primary copper	
3333	Primary Metal Industries	
3334	Primary Metal Industries, Primary Nonferrous Metals, Primary aluminum	
3339	Primary Metal Industries, Primary Nonferrous Metals, Primary nonferrous metals, nec	
3341	Primary Metal Industries, Secondary Nonferrous Metals, Secondary nonferrous metals	
3351	Primary Metal Industries, Nonferrous Rolling and Drawing, Copper rolling & drawing	
3353	Primary Metal Industries, Nonferrous Rolling and Drawing, Aluminum sheet, plate, and foil	
3354	Primary Metal Industries, Nonferrous Rolling and Drawing, Aluminum extruded products	
3355	Primary Metal Industries, Nonferrous Rolling and Drawing, Aluminum rolling & drawing, nec	
3356	Primary Metal Industries, Nonferrous Rolling and Drawing, Nonferrous rolling & drawing, nec	
3357	Primary Metal Industries, Nonferrous Rolling and Drawing, Nonferrous wiredrawing & insulating	
3361	Primary Metal Industries	
3362	Primary Metal Industries	
3363	Primary Metal Industries, Nonferrous Foundries (castings), Aluminum die-castings	
3364	Primary Metal Industries, Nonferrous Foundries (castings), Nonferrous die-casting exc. aluminum	
3365	Primary Metal Industries, Nonferrous Foundries (castings), Aluminum foundries	
3366	Primary Metal Industries, Nonferrous Foundries (castings), Copper foundries	
3369	Primary Metal Industries, Nonferrous Foundries (castings), Nonferrous foundries, nec	
3398	Primary Metal Industries, Miscellaneous Primary Metal Products, Metal heat treating	
3399	Primary Metal Industries, Miscellaneous Primary Metal Products, Primary metal products, nec	
3411	Fabricated Metal Products, Metal Cans and Shipping Containers, Metal cans	
3412	Fabricated Metal Products, Metal Cans and Shipping Containers, Metal barrels, drums, and pails	
3421	Fabricated Metal Products, Cutlery, Handtools, and Hardware, Cutlery	
3423	Fabricated Metal Products, Cutlery, Handtools, and Hardware, Hand and edge tools, nec	
3425	Fabricated Metal Products, Cutlery, Handtools, and Hardware, Saw blades and handsaws	
3429	Fabricated Metal Products, Cutlery, Handtools, and Hardware, Hardware, nec	
3431	Fabricated Metal Products, Plumbing and Heating, except Electric, Metal sanitary ware	
3432	Fabricated Metal Products, Plumbing and Heating, except Electric, Plumbing fixture fittings and trim	
3433	Fabricated Metal Products, Plumbing and Heating, except Electric, Heating equipment, except electric	
3441	Fabricated Metal Products, Fabricated Structural Metal Products, Fabricated structural metal	
3442	Fabricated Metal Products, Fabricated Structural Metal Products, Metal doors, sash, and trim	
3443	Fabricated Metal Products, Fabricated Structural Metal Products, Fabricated plate work (boiler shops)	
3444	Fabricated Metal Products, Fabricated Structural Metal Products, Sheet metalwork	
3446	Fabricated Metal Products, Fabricated Structural Metal Products, Architectural metal work	
3448	Fabricated Metal Products, Fabricated Structural Metal Products, Prefabricated metal buildings	
3449	Fabricated Metal Products, Fabricated Structural Metal Products, Miscellaneous metal work	
3451	Fabricated Metal Products, Screw Machine Products, Bolts, Etc., Screw machine products	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
3452	Fabricated Metal Products, Screw Machine Products, Bolts, Etc., Bolts, nuts, rivets, and washers	
3462	Fabricated Metal Products, Metal Forgings and Stampings, Iron and steel forgings	
3463	Fabricated Metal Products, Metal Forgings and Stampings, Nonferrous forgings	
3465	Fabricated Metal Products, Metal Forgings and Stampings, Automotive stampings	
3466	Fabricated Metal Products, Metal Forgings and Stampings, Crowns and closures	
3469	Fabricated Metal Products, Metal Forgings and Stampings, Metal stampings, nec	
3471	Fabricated Metal Products, Metal Services, Nec, Plating and polishing	
3479	Fabricated Metal Products, Metal Services, Nec, Metal coating and allied services	
3482	Fabricated Metal Products, Ordnance and Accessories, Nec, Small arms ammunition	
3483	Fabricated Metal Products, Ordnance and Accessories, Nec, Ammunition, exc. for small arms, nec	
3484	Fabricated Metal Products, Ordnance and Accessories, Nec, Small arms	
3489	Fabricated Metal Products, Ordnance and Accessories, Nec, Ordnance and accessories, nec	
3491	Fabricated Metal Products, Misc. Fabricated Metal Products, Industrial valves	
3492	Fabricated Metal Products, Misc. Fabricated Metal Products, Fluid power valves & hose fittings	
3493	Fabricated Metal Products, Misc. Fabricated Metal Products, Steel springs, except wire	
3494	Fabricated Metal Products, Misc. Fabricated Metal Products, Valves & pipe fittings, nec	
3495	Fabricated Metal Products, Misc. Fabricated Metal Products, Wire springs	
3496	Fabricated Metal Products, Misc. Fabricated Metal Products, Misc. fabricated wire products	
3497	Fabricated Metal Products, Misc. Fabricated Metal Products, Metal foil & leaf	
3498	Fabricated Metal Products, Misc. Fabricated Metal Products, Fabricated pipe & fittings	
3499	Fabricated Metal Products, Misc. Fabricated Metal Products, Fabricated metal products, nec	
3500	Industrial Machinery And Equipment	
3511	Industrial Machinery And Equipment, Engines and Turbines, Turbines and turbine generator sets	
3519	Industrial Machinery And Equipment, Engines and Turbines, Internal combustion engines, nec	
3523	Industrial Machinery And Equipment, Farm and Garden Machinery, Farm machinery and equipment	
3524	Industrial Machinery And Equipment, Farm and Garden Machinery, Lawn and garden equipment	
3531	Industrial Machinery And Equipment, Construction and Related Machinery, Construction machinery	
3532	Industrial Machinery And Equipment, Construction and Related Machinery, Mining machinery	
3533	Industrial Machinery And Equipment, Construction and Related Machinery, Oil and gas field machinery	
3534	Industrial Machinery And Equipment, Construction and Related Machinery, Elevators and moving stairways	
3535	Industrial Machinery And Equipment, Construction and Related Machinery, Conveyors and conveying equipment	
3536	Industrial Machinery And Equipment, Construction and Related Machinery, Hoists, cranes, and monorails	
3537	Industrial Machinery And Equipment, Construction and Related Machinery, Industrial trucks and tractors	
3541	Industrial Machinery And Equipment, Metalworking Machinery, Machine tools, metal cutting types	
3542	Industrial Machinery And Equipment, Metalworking Machinery, Machine tools, metal forming types	
3543	Industrial Machinery And Equipment, Metalworking Machinery, Industrial patterns	
3544	Industrial Machinery And Equipment, Metalworking Machinery, Special dies, tools, jigs & fixtures	
3545	Industrial Machinery And Equipment, Metalworking Machinery, Machine tool accessories	
3546	Industrial Machinery And Equipment, Metalworking Machinery, Power-driven handtools	
3547	Industrial Machinery And Equipment, Metalworking Machinery, Rolling mill machinery	
3548	Industrial Machinery And Equipment, Metalworking Machinery, Welding apparatus	
3549	Industrial Machinery And Equipment, Metalworking Machinery, Metalworking machinery, nec	
3551	Industrial Machinery And Equipment	
3552	Industrial Machinery And Equipment, Special Industry Machinery, Textile machinery	
3553	Industrial Machinery And Equipment, Special Industry Machinery, Woodworking machinery	
3554	Industrial Machinery And Equipment, Special Industry Machinery, Paper industries machinery	
3555	Industrial Machinery And Equipment, Special Industry Machinery, Printing trades machinery	
3556	Industrial Machinery And Equipment, Special Industry Machinery, Food products machinery	
3559	Industrial Machinery And Equipment, Special Industry Machinery, Special industry machinery, nec	
3561	Industrial Machinery And Equipment, General Industrial Machinery, Pumps and pumping equipment	
3562	Industrial Machinery And Equipment, General Industrial Machinery, Ball and roller bearings	
3563	Industrial Machinery And Equipment, General Industrial Machinery, Air and gas compressors	
3564	Industrial Machinery And Equipment, General Industrial Machinery, Blowers and fans	
3565	Industrial Machinery And Equipment, General Industrial Machinery, Packaging machinery	
3566	Industrial Machinery And Equipment, General Industrial Machinery, Speed changers, drives, and gears	
3567	Industrial Machinery And Equipment, General Industrial Machinery, Industrial furnaces and ovens	
3568	Industrial Machinery And Equipment, General Industrial Machinery, Power transmission equipment, nec	
3569	Industrial Machinery And Equipment, General Industrial Machinery, General industrial machinery, nec	
3571	Industrial Machinery And Equipment, Computer and Office Equipment, Electronic computers	
3572	Industrial Machinery And Equipment, Computer and Office Equipment, Computer storage devices	
3573	Industrial Machinery And Equipment	
3574	Industrial Machinery And Equipment	
3575	Industrial Machinery And Equipment, Computer and Office Equipment, Computer terminals	
3577	Industrial Machinery And Equipment, Computer and Office Equipment, Computer peripheral equipment, nec	
3579	Industrial Machinery And Equipment, Computer and Office Equipment, Office machines, nec	
3581	Industrial Machinery And Equipment, Refrigeration and Service Machinery, Automatic vending machines	
3582	Industrial Machinery And Equipment, Refrigeration and Service Machinery, Commercial laundry equipment	
3585	Industrial Machinery And Equipment, Refrigeration and Service Machinery, Refrigeration and heating equipment	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
3586	Industrial Machinery And Equipment, Refrigeration and Service Machinery, Measuring and dispensing pumps	
3589	Industrial Machinery And Equipment, Refrigeration and Service Machinery, Service industry machinery, nec	
3592	Industrial Machinery And Equipment, Industrial Machinery, Nec, Carburetors, pistons, rings, valves	
3593	Industrial Machinery And Equipment, Industrial Machinery, Nec, Fluid power cylinders & actuators	
3594	Industrial Machinery And Equipment, Industrial Machinery, Nec, Fluid power pumps & motors	
3596	Industrial Machinery And Equipment, Industrial Machinery, Nec, Scales and balances, exc. laboratory	
3599	Industrial Machinery And Equipment, Industrial Machinery, Nec, Industrial machinery, nec	
3600	Electronic & Other Electric Equipment	
3612	Electronic & Other Electric Equipment, Electric Distribution Equipment, Transformers, except electronic	
3613	Electronic & Other Electric Equipment, Electric Distribution Equipment, Switchgear and switchboard apparatus	
3621	Electronic & Other Electric Equipment, Electrical Industrial Apparatus, Motors and generators	
3622	Electronic & Other Electric Equipment	
3623	Electronic & Other Electric Equipment	
3624	Electronic & Other Electric Equipment, Electrical Industrial Apparatus, Carbon and graphite products	
3625	Electronic & Other Electric Equipment, Electrical Industrial Apparatus, Relays and industrial controls	
3629	Electronic & Other Electric Equipment, Electrical Industrial Apparatus, Electrical industrial apparatus, nec	
3631	Electronic & Other Electric Equipment, Household Appliances, Household cooking equipment	
3632	Electronic & Other Electric Equipment, Household Appliances, Household refrigerators and freezers	
3633	Electronic & Other Electric Equipment, Household Appliances, Household laundry equipment	
3634	Electronic & Other Electric Equipment, Household Appliances, Electric housewares and fans	
3635	Electronic & Other Electric Equipment, Household Appliances, Household vacuum cleaners	
3639	Electronic & Other Electric Equipment, Household Appliances, Household appliances, nec	
3641	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Electric lamps	
3643	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Current-carrying wiring devices	
3644	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Noncurrent-carrying wiring devices	
3645	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Residential lighting fixtures	
3646	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Commercial lighting fixtures	
3647	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Vehicular lighting equipment	
3648	Electronic & Other Electric Equipment, Electric Lighting and Wiring Equipment, Lighting equipment, nec	
3651	Electronic & Other Electric Equipment, Household Audio and Video Equipment, Household audio and video equipment	
3652	Electronic & Other Electric Equipment, Household Audio and Video Equipment, Prerecorded records and tapes	
3661	Electronic & Other Electric Equipment, Communications Equipment, Telephone and telegraph apparatus	
3662	Electronic & Other Electric Equipment	
3663	Electronic & Other Electric Equipment, Communications Equipment, Radio & TV communications equipment	
3669	Electronic & Other Electric Equipment, Communications Equipment, Communications equipment, nec	
3671	Electronic & Other Electric Equipment, Electronic Components and Accessories, Electron tubes	
3672	Electronic & Other Electric Equipment, Electronic Components and Accessories, Printed circuit boards	
3673	Electronic & Other Electric Equipment	
3674	Electronic & Other Electric Equipment, Electronic Components and Accessories, Semiconductors and related devices	
3675	Electronic & Other Electric Equipment, Electronic Components and Accessories, Electronic capacitors	
3676	Electronic & Other Electric Equipment, Electronic Components and Accessories, Electronic resistors	
3677	Electronic & Other Electric Equipment, Electronic Components and Accessories, Electronic coils and transformers	
3678	Electronic & Other Electric Equipment, Electronic Components and Accessories, Electronic connectors	
3679	Electronic & Other Electric Equipment, Electronic Components and Accessories, Electronic components, nec	
3691	Electronic & Other Electric Equipment, Misc. Electrical Equipment & Supplies, Storage batteries	
3692	Electronic & Other Electric Equipment, Misc. Electrical Equipment & Supplies, Primary batteries, dry and wet	
3693	Electronic & Other Electric Equipment	
3694	Electronic & Other Electric Equipment, Misc. Electrical Equipment & Supplies, Engine electrical equipment	
3695	Electronic & Other Electric Equipment, Misc. Electrical Equipment & Supplies, Magnetic and optical recording media	
3699	Electronic & Other Electric Equipment, Misc. Electrical Equipment & Supplies, Electrical equipment & supplies, nec	
3711	Transportation Equipment, Motor Vehicles and Equipment, Motor vehicles and car bodies	
3713	Transportation Equipment, Motor Vehicles and Equipment, Truck and bus bodies	
3714	Transportation Equipment, Motor Vehicles and Equipment, Motor vehicle parts and accessories	
3715	Transportation Equipment, Motor Vehicles and Equipment, Truck trailers	
3721	Transportation Equipment, Aircraft and Parts, Aircraft	
3724	Transportation Equipment, Aircraft and Parts, Aircraft engines and engine parts	
3728	Transportation Equipment, Aircraft and Parts, Aircraft parts and equipment, nec	
3731	Transportation Equipment, Ship and Boat Building and Repairing, Ship building and repairing	
3732	Transportation Equipment, Ship and Boat Building and Repairing, Boat building and repairing	
3743	Transportation Equipment, Railroad Equipment, Railroad equipment	
3751	Transportation Equipment, Motorcycles, Bicycles, and Parts, Motorcycles, bicycles, and parts	
3761	Transportation Equipment, Guided Missiles, Space Vehicles, Parts, Guided missiles and space vehicles	
3764	Transportation Equipment, Guided Missiles, Space Vehicles, Parts, Space propulsion units and parts	
3769	Transportation Equipment, Guided Missiles, Space Vehicles, Parts, Space vehicle equipment, nec	
3792	Transportation Equipment, Miscellaneous Transportation Equipment, Travel trailers and campers	
3795	Transportation Equipment, Miscellaneous Transportation Equipment, Tanks and tank components	
3799	Transportation Equipment, Miscellaneous Transportation Equipment, Transportation equipment, nec	
3811	Instruments And Related Products	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
3812	Instruments And Related Products, Search and Navigation Equipment, Search and navigation equipment	
3821	Instruments And Related Products, Measuring and Controlling Devices, Laboratory apparatus and furniture	
3822	Instruments And Related Products, Measuring and Controlling Devices, Environmental controls	
3823	Instruments And Related Products, Measuring and Controlling Devices, Process control instruments	
3824	Instruments And Related Products, Measuring and Controlling Devices, Fluid meters and counting devices	
3825	Instruments And Related Products, Measuring and Controlling Devices, Instruments to measure electricity	
3826	Instruments And Related Products, Measuring and Controlling Devices, Analytical instruments	
3827	Instruments And Related Products, Measuring and Controlling Devices, Optical instruments and lenses	
3829	Instruments And Related Products, Measuring and Controlling Devices, Measuring & controlling devices, nec	
3832	Instruments And Related Products	
3841	Instruments And Related Products, Medical Instruments and Supplies, Surgical and medical instruments	
3842	Instruments And Related Products, Medical Instruments and Supplies, Surgical appliances and supplies	
3843	Instruments And Related Products, Medical Instruments and Supplies, Dental equipment and supplies	
3844	Instruments And Related Products, Medical Instruments and Supplies, X-ray apparatus and tubes	
3845	Instruments And Related Products, Medical Instruments and Supplies, Electromedical equipment	
3851	Instruments And Related Products, Ophthalmic Goods, Ophthalmic goods	
3861	Instruments And Related Products, Photographic Equipment and Supplies, Photographic equipment and supplies	
3873	Instruments And Related Products, Watches, Clocks, Watchcases & Parts, Watches, clocks, watchcases & parts	
3911	Miscellaneous Manufacturing Industries, Jewelry, Silverware, and Plated Ware, Jewelry, precious metal	
3914	Miscellaneous Manufacturing Industries, Jewelry, Silverware, and Plated Ware, Silverware and plated ware	
3931	Miscellaneous Manufacturing Industries, Musical Instruments, Musical instruments	
3942	Miscellaneous Manufacturing Industries, Toys and Sporting Goods, Dolls and stuffed toys	
3944	Miscellaneous Manufacturing Industries, Toys and Sporting Goods, Games, toys, and children's vehicles	
3949	Miscellaneous Manufacturing Industries, Toys and Sporting Goods, Sporting and athletic goods, nec	
3951	Miscellaneous Manufacturing Industries, Pens, Pencils, Office, & Art Supplies, Pens and mechanical pencils	
3952	Miscellaneous Manufacturing Industries, Pens, Pencils, Office, & Art Supplies, Lead pencils and art goods	
3955	Miscellaneous Manufacturing Industries, Pens, Pencils, Office, & Art Supplies, Carbon paper and inked ribbons	
3961	Miscellaneous Manufacturing Industries, Costume Jewelry and Notions, Costume jewelry	
3963	Miscellaneous Manufacturing Industries	
3965	Miscellaneous Manufacturing Industries, Costume Jewelry and Notions, Fasteners, buttons, needles, & pins	
3991	Miscellaneous Manufacturing Industries, Miscellaneous Manufactures, Brooms and brushes	
3993	Miscellaneous Manufacturing Industries, Miscellaneous Manufactures, Signs and advertising specialties	
3995	Miscellaneous Manufacturing Industries, Miscellaneous Manufactures, Burial caskets	
3996	Miscellaneous Manufacturing Industries, Miscellaneous Manufactures, Hard surface floor coverings, nec	
3999	Miscellaneous Manufacturing Industries, Miscellaneous Manufactures, Manufacturing industries, nec	
4011	Railroad Transportation, Railroads, Railroads, line-haul operating	X
4013	Railroad Transportation, Railroads, Switching and terminal services	X
4111	Local And Interurban Passenger Transit, Local and Suburban Transportation, Local and suburban transit	X
4173	Local And Interurban Passenger Transit, Bus Terminal and Service Facilities, Bus terminal and service facilities	X
4212	Trucking And Warehousing, Trucking & Courier Services, Ex. Air, Local trucking, without storage	X
4213	Trucking And Warehousing, Trucking & Courier Services, Ex. Air, Trucking, except local	X
4214	Trucking And Warehousing, Trucking & Courier Services, Ex. Air, Local trucking with storage	X
4221	Trucking And Warehousing, Public Warehousing and Storage, Farm product warehousing and storage	X
4224	Trucking And Warehousing	X
4225	Trucking And Warehousing, Public Warehousing and Storage, General warehousing and storage	X
4226	Trucking And Warehousing, Public Warehousing and Storage, Special warehousing and storage, nec	X
4231	Trucking And Warehousing, Trucking Terminal Facilities, Trucking terminal facilities	X
4311	U.S. Postal Service, U.S. Postal Service, U.S. Postal Service	X
4449	Water Transportation, Water Transportation Of Freight, Nec, Water transportation of freight, nec	X
4463	Water Transportation	X
4491	Water Transportation, Water Transportation Services, Marine cargo handling	X
4511	Transportation By Air	X
4512	Transportation By Air, Air Transportation, Scheduled, Air transportation, scheduled	X
4522	Transportation By Air, Air Transportation, Nonscheduled, Air transportation, nonscheduled	X
4581	Transportation By Air, Airports, Flying Fields, & Services, Airports, flying fields, & services	X
4582	Transportation By Air	X
4612	Pipelines, Except Natural Gas, Pipelines, except Natural Gas, Crude petroleum pipelines	
4613	Pipelines, Except Natural Gas, Pipelines, except Natural Gas, Refined petroleum pipelines	
4741	Transportation Services, Rental Of Railroad Cars, Rental of railroad cars	X
4742	Transportation Services	X
4789	Transportation Services, Miscellaneous Transportation Services, Transportation services, nec	X
4800	Communication	X
4811	Communication	X
4813	Communication, Telephone Communication, Telephone communications, exc. radio	X
4822	Communication, Telegraph & Other Communications, Telegraph & other communications	X
4833	Communication, Radio and Television Broadcasting, Television broadcasting stations	X
4899	Communication, Communication Services, Nec, Communication services, nec	X
49	Electric, Gas, And Sanitary Services	

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
4900	Electric, Gas, And Sanitary Services	
4901	Electric, Gas, And Sanitary Services	
491	Electric, Gas, And Sanitary Services, Electric Services	
4910	Electric, Gas, And Sanitary Services	
4911	Electric, Gas, And Sanitary Services, Electric Services, Electric services	
4922	Electric, Gas, And Sanitary Services, Gas Production and Distribution, Natural gas transmission	
4923	Electric, Gas, And Sanitary Services, Gas Production and Distribution, Gas transmission and distribution	
4924	Electric, Gas, And Sanitary Services, Gas Production and Distribution, Natural gas distribution	
4925	Electric, Gas, And Sanitary Services, Gas Production and Distribution, Gas production and/or distribution	
4931	Electric, Gas, And Sanitary Services, Combination Utility Services, Electric and other services combined	
4932	Electric, Gas, And Sanitary Services, Combination Utility Services, Gas and other services combined	
4939	Electric, Gas, And Sanitary Services, Combination Utility Services, Combination utilities, nec	
4941	Electric, Gas, And Sanitary Services, Water Supply, Water supply	
4951	Electric, Gas, And Sanitary Services	
4952	Electric, Gas, And Sanitary Services, Sanitary Services, Sewerage systems	
4953	Electric, Gas, And Sanitary Services, Sanitary Services, Refuse systems	
4959	Electric, Gas, And Sanitary Services, Sanitary Services, Sanitary services, nec	
4960	Electric, Gas, And Sanitary Services	
4961	Electric, Gas, And Sanitary Services, Steam and Air-conditioning Supply, Steam and air-conditioning supply	
5012	Wholesale Trade--Durable Goods, Motor Vehicles, Parts, and Supplies, Automobiles and other motor vehicles	X
5013	Wholesale Trade--Durable Goods, Motor Vehicles, Parts, and Supplies, Motor vehicle supplies and new parts	X
5014	Wholesale Trade--Durable Goods, Motor Vehicles, Parts, and Supplies, Tires and tubes	X
5030	Wholesale Trade--Durable Goods	X
5031	Wholesale Trade--Durable Goods, Lumber and Construction Materials, Lumber, plywood, and millwork	X
5032	Wholesale Trade--Durable Goods, Lumber and Construction Materials, Brick, stone, & related materials	X
5039	Wholesale Trade--Durable Goods, Lumber and Construction Materials, Construction materials, nec	X
5045	Wholesale Trade--Durable Goods, Professional & Commercial Equipment, Computers, peripherals & software	X
5047	Wholesale Trade--Durable Goods, Professional & Commercial Equipment, Medical and hospital equipment	X
5051	Wholesale Trade--Durable Goods, Metals and Minerals, except Petroleum, Metals service centers and offices	X
5052	Wholesale Trade--Durable Goods, Metals and Minerals, except Petroleum, Coal and other minerals and ores	X
5063	Wholesale Trade--Durable Goods, Electrical Goods, Electrical apparatus and equipment	X
5065	Wholesale Trade--Durable Goods, Electrical Goods, Electronic parts and equipment	X
5072	Wholesale Trade--Durable Goods, Hardware, Plumbing & Heating Equipment, Hardware	X
5074	Wholesale Trade--Durable Goods, Hardware, Plumbing & Heating Equipment, Plumbing & hydronic heating supplies	X
5082	Wholesale Trade--Durable Goods, Machinery, Equipment, and Supplies, Construction and mining machinery	X
5083	Wholesale Trade--Durable Goods, Machinery, Equipment, and Supplies, Farm and garden machinery	X
5084	Wholesale Trade--Durable Goods, Machinery, Equipment, and Supplies, Industrial machinery and equipment	X
5085	Wholesale Trade--Durable Goods, Machinery, Equipment, and Supplies, Industrial supplies	X
5087	Wholesale Trade--Durable Goods, Machinery, Equipment, and Supplies, Service establishment equipment	X
5088	Wholesale Trade--Durable Goods, Machinery, Equipment, and Supplies, Transportation equipment & supplies	X
5091	Wholesale Trade--Durable Goods, Miscellaneous Durable Goods, Sporting & recreational goods	X
5092	Wholesale Trade--Durable Goods, Miscellaneous Durable Goods, Toys and hobby goods and supplies	X
5093	Wholesale Trade--Durable Goods, Miscellaneous Durable Goods, Scrap and waste materials	X
5099	Wholesale Trade--Durable Goods, Miscellaneous Durable Goods, Durable goods, nec	X
5111	Wholesale Trade--Nondurable Goods, Paper and Paper Products, Printing and writing paper	X
5113	Wholesale Trade--Nondurable Goods, Paper and Paper Products, Industrial & personal service paper	X
5122	Wholesale Trade--Nondurable Goods, Drugs, Proprietarys, and Sundries, Drugs, proprietarys, and sundries	X
5136	Wholesale Trade--Nondurable Goods, Apparel, Piece Goods, and Notions, Men's and boys' clothing	X
5137	Wholesale Trade--Nondurable Goods, Apparel, Piece Goods, and Notions, Women's and children's clothing	X
5141	Wholesale Trade--Nondurable Goods, Groceries and Related Products, Groceries, general line	X
5143	Wholesale Trade--Nondurable Goods, Groceries and Related Products, Dairy products, exc. dried or canned	X
5144	Wholesale Trade--Nondurable Goods, Groceries and Related Products, Poultry and poultry products	X
5145	Wholesale Trade--Nondurable Goods, Groceries and Related Products, Confectionery	X
5147	Wholesale Trade--Nondurable Goods, Groceries and Related Products, Meats and meat products	X
5149	Wholesale Trade--Nondurable Goods, Groceries and Related Products, Groceries and related products, nec	X
5153	Wholesale Trade--Nondurable Goods, Farm-product Raw Materials, Grain and field beans	X
5154	Wholesale Trade--Nondurable Goods, Farm-product Raw Materials, Livestock	X
51576	Wholesale Trade--Durable Goods	X
5159	Wholesale Trade--Nondurable Goods, Farm-product Raw Materials, Farm-product raw materials, nec	X
5161	Wholesale Trade--Durable Goods	X
5162	Wholesale Trade--Nondurable Goods, Chemicals and Allied Products, Plastics materials & basic shapes	X
5169	Wholesale Trade--Nondurable Goods, Chemicals and Allied Products, Chemicals & allied products, nec	X
5171	Wholesale Trade--Nondurable Goods, Petroleum and Petroleum Products, Petroleum bulk stations & terminals	X
5172	Wholesale Trade--Nondurable Goods, Petroleum and Petroleum Products, Petroleum products, nec	X
5181	Wholesale Trade--Nondurable Goods, Beer, Wine, and Distilled Beverages, Beer and ale	X
5182	Wholesale Trade--Nondurable Goods, Beer, Wine, and Distilled Beverages, Wine and distilled beverages	X
5191	Wholesale Trade--Nondurable Goods, Misc. Nondurable Goods, Farm supplies	X
5192	Wholesale Trade--Nondurable Goods, Misc. Nondurable Goods, Books, periodicals, & newspapers	X

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
5193	Wholesale Trade--Nondurable Goods, Misc. Nondurable Goods, Flowers & florists' supplies	X
5198	Wholesale Trade--Nondurable Goods, Misc. Nondurable Goods, Paints, varnishes, and supplies	X
5199	Wholesale Trade--Nondurable Goods, Misc. Nondurable Goods, Nondurable goods, nec	X
5211	Building Materials & Garden Supplies, Lumber and Other Building Materials, Lumber and other building materials	X
5231	Building Materials & Garden Supplies, Paint, Glass, and Wallpaper Stores, Paint, glass, and wallpaper stores	X
5243	Building Materials & Garden Supplies	X
5249	Building Materials & Garden Supplies	X
5253	Building Materials & Garden Supplies	X
5261	Building Materials & Garden Supplies, Retail Nurseries and Garden Stores, Retail nurseries and garden stores	X
5295	Building Materials & Garden Supplies	X
5311	General Merchandise Stores, Department Stores, Department stores	X
5399	General Merchandise Stores, Misc. General Merchandise Stores, Misc. general merchandise stores	X
5411	Food Stores, Grocery Stores, Grocery stores	X
5451	Food Stores, Dairy Products Stores, Dairy products stores	X
5461	Food Stores, Retail Bakeries, Retail bakeries	X
5511	Automotive Dealers & Service Stations, New and Used Car Dealers, New and used car dealers	X
5521	Automotive Dealers & Service Stations, Used Car Dealers, Used car dealers	X
5531	Automotive Dealers & Service Stations, Auto and Home Supply Stores, Auto and home supply stores	X
5541	Automotive Dealers & Service Stations, Gasoline Service Stations, Gasoline service stations	X
5699	Apparel And Accessory Stores, Misc. Apparel & Accessory Stores, Misc. apparel & accessory stores	X
5712	Furniture And Homefurnishings Stores, Furniture and Homefurnishings Stores, Furniture stores	X
5812	Eating And Drinking Places, Eating and Drinking Places, Eating places	X
5821	Eating And Drinking Places	X
58873	Eating And Drinking Places	X
5961	Miscellaneous Retail, Nonstore Retailers, Catalog and mail-order houses	X
5983	Miscellaneous Retail, Fuel Dealers, Fuel oil dealers	X
5989	Miscellaneous Retail, Fuel Dealers, Fuel dealers, nec	X
5992	Miscellaneous Retail, Retail Stores, Nec, Florists	X
5999	Miscellaneous Retail, Retail Stores, Nec, Miscellaneous retail stores, nec	X
6021	Depository Institutions, Commercial Banks, National commercial banks	X
6022	Depository Institutions, Commercial Banks, State commercial banks	X
6023	Depository Institutions	X
6025	Depository Institutions	X
6061	Depository Institutions, Credit Unions, Federal credit unions	X
6141	Nondepository Institutions, Personal Credit Institutions, Personal credit institutions	X
6223	Security And Commodity Brokers	X
6289	Security And Commodity Brokers, Security and Commodity Services, Security & commodity services, nec	X
6311	Insurance Carriers, Life Insurance, Life insurance	X
6321	Insurance Carriers, Medical Service and Health Insurance, Accident and health insurance	X
6324	Insurance Carriers, Medical Service and Health Insurance, Hospital and medical service plans	X
6331	Insurance Carriers, Fire, Marine, and Casualty Insurance, Fire, marine, and casualty insurance	X
6399	Insurance Carriers, Insurance Carriers, Nec, Insurance carriers, nec	X
6411	Insurance Agents, Brokers, & Service, Insurance Agents, Brokers, & Service, Insurance agents, brokers, & service	X
6512	Real Estate, Real Estate Operators and Lessors, Nonresidential building operators	X
6513	Real Estate, Real Estate Operators and Lessors, Apartment building operators	X
6514	Real Estate, Real Estate Operators and Lessors, Dwelling operators, exc. apartments	X
6519	Real Estate, Real Estate Operators and Lessors, Real property lessors, nec	X
6531	Real Estate, Real Estate Agents and Managers, Real estate agents and managers	X
6719	Holding And Other Investment Offices, Holding Offices, Holding companies, nec	X
6732	Holding And Other Investment Offices, Trusts, Educational, religious, etc. trusts	X
7011	Hotels And Other Lodging Places, Hotels and Motels, Hotels and motels	X
7020	Hotels And Other Lodging Places	X
7021	Hotels And Other Lodging Places, Rooming and Boarding Houses, Rooming and boarding houses	X
7041	Hotels And Other Lodging Places, Membership-Basis Organization Hotels, Membership-basis organization hotels	X
7210	Personal Services	X
7211	Personal Services, Laundry, Cleaning, & Garment Services, Power laundries, family & commercial	X
7212	Personal Services, Laundry, Cleaning, & Garment Services, Garment pressing & cleaners' agents	X
7213	Personal Services, Laundry, Cleaning, & Garment Services, Linen supply	X
7215	Personal Services, Laundry, Cleaning, & Garment Services, Coin-operated laundries and cleaning	X
7216	Personal Services, Laundry, Cleaning, & Garment Services, Drycleaning plants, except rug	X
7218	Personal Services, Laundry, Cleaning, & Garment Services, Industrial launderers	X
7219	Personal Services, Laundry, Cleaning, & Garment Services, Laundry and garment services, nec	X
7261	Personal Services, Funeral Service and Crematories, Funeral service and crematories	X
7313	Business Services, Advertising, Radio, TV, publisher representatives	X
7334	Business Services, Mailing, Reproduction, Stenographic, Photocopying & duplicating services	X
7335	Business Services, Mailing, Reproduction, Stenographic, Commercial photography	X
7336	Business Services, Mailing, Reproduction, Stenographic, Commercial art and graphic design	X
7338	Business Services, Mailing, Reproduction, Stenographic, Secretarial & court reporting	X

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source?
7342	Business Services, Services to Buildings, Disinfecting & pest control services	X
7349	Business Services, Services to Buildings, Building maintenance services, nec	X
7371	Business Services, Computer and Data Processing Services, Computer programming services	X
7374	Business Services, Computer and Data Processing Services, Data processing and preparation	X
7375	Business Services, Computer and Data Processing Services, Information retrieval services	X
7379	Business Services, Computer and Data Processing Services, Computer related services, nec	X
7384	Business Services, Miscellaneous Business Services, Photofinishing laboratories	X
7389	Business Services, Miscellaneous Business Services, Business services, nec	X
7391	Business Services	X
7399	Business Services	X
7532	Auto Repair, Services, And Parking, Automotive Repair Shops, Top & body repair & paint shops	X
7534	Auto Repair, Services, And Parking, Automotive Repair Shops, Tire retreading and repair shops	X
7535	Auto Repair	X
7538	Auto Repair, Services, And Parking, Automotive Repair Shops, General automotive repair shops	X
7539	Auto Repair, Services, And Parking, Automotive Repair Shops, Automotive repair shops, nec	X
7542	Auto Repair, Services, And Parking, Automotive Services, except Repair, Carwashes	X
7549	Auto Repair, Services, And Parking, Automotive Services, except Repair, Automotive services, nec	X
7623	Miscellaneous Repair Services, Electrical Repair Shops, Refrigeration service and repair	X
7629	Miscellaneous Repair Services, Electrical Repair Shops, Electrical repair shops, nec	X
7641	Miscellaneous Repair Services, Reupholstery and Furniture Repair, Reupholstery and furniture repair	X
7692	Miscellaneous Repair Services, Miscellaneous Repair Shops, Welding repair	X
7694	Miscellaneous Repair Services, Miscellaneous Repair Shops, Armature rewinding shops	X
7699	Miscellaneous Repair Services, Miscellaneous Repair Shops, Repair services, nec	X
7812	Motion Pictures, Motion Picture Production & Services, Motion picture & video production	X
7819	Motion Pictures, Motion Picture Production & Services, Services allied to motion pictures	X
7821	Motion Pictures	X
7929	Amusement & Recreation Services, Producers, Orchestras, Entertainers, Entertainers & entertainment groups	X
7948	Amusement & Recreation Services, Commercial Sports, Racing, including track operation	X
7991	Amusement & Recreation Services, Misc. Amusement, Recreation Services, Physical fitness facilities	X
7992	Amusement & Recreation Services, Misc. Amusement, Recreation Services, Public golf courses	X
7996	Amusement & Recreation Services, Misc. Amusement, Recreation Services, Amusement parks	X
7997	Amusement & Recreation Services, Misc. Amusement, Recreation Services, Membership sports & recreation clubs	X
7999	Amusement & Recreation Services, Misc. Amusement, Recreation Services, Amusement and recreation, nec	X
80	Health Services	X
8000	Health Services	X
8011	Health Services, Offices & Clinics Of Medical Doctors, Offices & clinics of medical doctors	X
8051	Health Services, Nursing and Personal Care Facilities, Skilled nursing care facilities	X
8052	Health Services, Nursing and Personal Care Facilities, Intermediate care facilities	X
8059	Health Services, Nursing and Personal Care Facilities, Nursing and personal care, nec	X
806	Health Services, Hospitals	X
8061	Health Services	X
8062	Health Services, Hospitals, General medical & surgical hospitals	X
8063	Health Services, Hospitals, Psychiatric hospitals	X
8069	Health Services, Hospitals, Specialty hospitals exc. psychiatric	X
8071	Health Services, Medical and Dental Laboratories, Medical laboratories	X
8081	Health Services	X
8082	Health Services, Home Health Care Services, Home health care services	X
8091	Health Services	X
8092	Health Services, Health and Allied Services, Nec, Kidney dialysis centers	X
8099	Health Services, Health and Allied Services, Nec, Health and allied services, nec	X
8200	Educational Services	X
8211	Educational Services, Elementary and Secondary Schools, Elementary and secondary schools	X
8220	Educational Services	X
8221	Educational Services, Colleges and Universities, Colleges and universities	X
8222	Educational Services, Colleges and Universities, Junior colleges	X
8231	Educational Services, Libraries, Libranes	X
8232	Educational Services	X
8249	Educational Services, Vocational Schools, Vocational schools, nec	X
8299	Educational Services, Schools & Educational Services, Nec, Schools & educational services, nec	X
8300	Social Services	X
8322	Social Services, Individual and Family Services, Individual and family services	X
8331	Social Services, Job Training and Related Services, Job training and related services	X
8351	Social Services, Child Day Care Services, Child day care services	X
8361	Social Services, Residential Care, Residential care	X
8399	Social Services, Social Services, Nec, Social services, nec	X
8412	Museums, Botanical, Zoological Gardens, Museums and Art Galleries, Museums and art galleries	X
8422	Museums, Botanical, Zoological Gardens, Botanical and Zoological Gardens, Botanical and zoological gardens	X
8611	Membership Organizations, Business Associations, Business associations	X

Appendix A. Summary of SIC Codes in the Boiler Inventory and Survey Databases with Indication of Area Source Status

SIC Code	SIC Description	Area Source
8621	Membership Organizations, Professional Organizations, Professional organizations	X
8641	Membership Organizations, Civic and Social Associations, Civic and social associations	X
8661	Membership Organizations, Religious Organizations, Religious organizations	X
8699	Membership Organizations, Membership Organizations, Nec, Membership organizations, nec	X
8711	Engineering & Management Services, Engineering & Architectural Services, Engineering services	X
8731	Engineering & Management Services, Research and Testing Services, Commercial physical research	X
8732	Engineering & Management Services, Research and Testing Services, Commercial nonphysical research	X
8733	Engineering & Management Services, Research and Testing Services, Noncommercial research organizations	X
8734	Engineering & Management Services, Research and Testing Services, Testing laboratories	X
8741	Engineering & Management Services, Management and Public Relations, Management services	X
8744	Engineering & Management Services, Management and Public Relations, Facilities support services	X
8748	Engineering & Management Services, Management and Public Relations, Business consulting, nec	X
8811	Private Households, Private Households	X
8911	Services, Nec, Services, Nec	X
8922	Services, Nec, Services, Nec	X
8931	Services, Nec, Services, Nec	X
899	Services, Nec, Services, Nec	X
8999	Services, Nec, Services, Nec, Services, nec	X
9111	Executive, Legislative, And General, Executive Offices, Executive offices	X
9121	Executive, Legislative, And General, Legislative Bodies, Legislative bodies	X
9131	Executive, Legislative, And General, Executive and Legislative Combined, Executive and legislative combined	X
9199	Executive, Legislative, And General, General Government, Nec, General government, nec	X
9211	Justice, Public Order, And Safety, Courts, Courts	X
9221	Justice, Public Order, And Safety, Public Order and Safety, Police protection	X
9223	Justice, Public Order, And Safety, Public Order and Safety, Correctional Institutions	X
9229	Justice, Public Order, And Safety, Public Order and Safety, Public order and safety, nec	X
9311	Finance, Taxation, & Monetary Policy, Finance, Taxation, & Monetary Policy, Finance, taxation, & monetary policy	X
9431	Administration Of Human Resources, Admin. Of Public Health Programs, Admin. of public health programs	X
9451	Administration Of Human Resources, Administration Of Veterans' Affairs, Administration of veterans' affairs	X
9511	Environmental Quality And Housing, Environmental Quality, Air, water, & solid waste management	X
9512	Environmental Quality And Housing, Environmental Quality, Land, mineral, wildlife conservation	X
9531	Environmental Quality And Housing, Housing and Urban Development, Housing programs	X
9532	Environmental Quality And Housing, Housing and Urban Development, Urban and community development	X
9611	Administration Of Economic Programs, Admin. Of General Economic Programs, Admin. of general economic progra	X
9621	Administration Of Economic Programs, Regulation, Admin. Of Transportation, Regulation, admin. of transportation	X
9631	Administration Of Economic Programs, Regulation, Admin. Of Utilities, Regulation, admin. of utilities	X
9661	Administration Of Economic Programs, Space Research and Technology, Space research and technology	X
9700	National Security And Intl. Affairs	X
9711	National Security And Intl. Affairs, National Security, National security	X
9999	Nonclassifiable Establishments, Nonclassifiable Establishments, Nonclassifiable establishments	X

Appendix B

1994 DOE Manufacturing Fuel Consumption Report, Table A9

(No electronic copy. Hardcopy is included in docket copies)

Table A9. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Census Region, and End Use, 1994: Part 2
(Estimates in Trillion Btu)

End-Use Categories	Total	Net Electricity ^a	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel ^b	Natural Gas ^c	LPG	Coal (excluding Coal Coke and Breeze)	Other ^d	RSE Row Factors
Total United States									
RSE Column Factors:	NF	0.5	1.3	1.4	0.8	1.2	1.2	NF	
TOTAL INPUTS	16,515	2,658	441	152	6,141	99	1,196	5,828	2.7
Indirect Uses-Boiler Fuel	-	28	313	42	2,396	15	875	-	4.0
Direct Uses-Total Process	-	2,075	106	51	2,872	54	302	-	3.8
Process Heating	-	284	103	29	2,702	49	298	-	4.1
Process Cooling and Refrigeration	-	138	-	-	21	2	-	-	17.5
Machine Drive	-	1,367	3	18	95	3	3	-	7.7
Electro-Chemical Processes	-	271	-	-	-	-	-	-	1.1
Other Process Use	-	15	-	4	53	1	-	-	16.1
Direct Uses-Total Nonprocess	-	457	14	49	728	25	8	-	5.2
Facility Heating, Ventilation, and Air Conditioning ^e	-	217	5	7	351	5	3	-	6.5
Facility Lighting	-	185	-	-	-	-	-	-	1.1
Facility Support	-	46	3	1	30	1	-	-	12.1
Onsite Transportation	-	4	-	35	1	19	-	-	3.9
Conventional Electricity Generation	-	-	5	4	335	1	6	-	8.3
Other Nonprocess Use	-	4	1	2	9	-	0	-	16.9
End Use Not Reported	8,106	96	9	9	148	4	13	5,828	8.8
Northeast Census Region									
RSE Column Factors:	NF	0.5	1.0	1.2	0.8	1.4	1.4	NF	
TOTAL INPUTS	1,625	321	153	41	517	18	130	446	4.4
Indirect Uses-Boiler Fuel	-	2	119	15	174	2	95	-	8.9
Direct Uses-Total Process	-	236	25	13	250	11	31	-	6.4
Process Heating	-	43	24	9	240	10	31	-	7.8
Process Cooling and Refrigeration	-	16	-	-	1	-	0	-	24.5
Machine Drive	-	151	1	3	8	-	0	-	14.5
Electro-Chemical Processes	-	24	-	-	-	-	-	-	1.3
Other Process Use	-	2	-	-	3	-	0	-	19.1
Direct Uses-Total Nonprocess	-	69	7	11	74	4	-	-	9.1
Facility Heating, Ventilation, and Air Conditioning ^e	-	31	3	5	57	1	-	-	8.1
Facility Lighting	-	29	-	-	-	-	-	-	1.3
Facility Support	-	8	W	-	4	-	0	-	16.5
Onsite Transportation	-	1	-	4	-	3	-	-	5.9
Conventional Electricity Generation	-	-	W	1	12	W	-	-	13.4
Other Nonprocess Use	-	1	1	-	-	W	0	-	30.2
End Use Not Reported	487	14	2	3	18	1	3	446	15.7
Midwest Census Region									
RSE Column Factors:	NF	0.5	1.3	1.6	0.7	1.2	1.1	NF	
TOTAL INPUTS	4,303	811	75	23	1,635	19	407	1,332	5.2
Indirect Uses-Boiler Fuel	-	8	53	4	517	2	323	-	7.8
Direct Uses-Total Process	-	636	22	7	854	7	77	-	6.7
Process Heating	-	98	W	3	813	6	W	-	8.0
Process Cooling and Refrigeration	-	37	-	-	1	0	-	-	19.5
Machine Drive	-	443	W	2	16	1	W	-	13.4
Electro-Chemical Processes	-	52	-	-	-	-	-	-	1.1
Other Process Use	-	7	-	2	24	-	0	-	18.7
Direct Uses-Total Nonprocess	-	140	W	10	211	9	W	-	8.3
Facility Heating, Ventilation, and Air Conditioning ^e	-	62	W	1	187	2	W	-	12.5
Facility Lighting	-	61	-	-	-	-	-	-	1.2
Facility Support	-	14	-	-	12	-	-	-	16.6
Onsite Transportation	-	2	-	9	-	7	-	-	6.5
Conventional Electricity Generation	-	-	0	-	8	W	W	-	6.6
Other Nonprocess Use	-	2	-	-	3	W	0	-	25.5
End Use Not Reported	1,420	26	W	2	53	1	W	1,332	16.7

See footnotes at end of table.

Table A9. Total Inputs of Energy for Heat, Power, and Electricity Generation by Fuel Type, Census Region, and End Use, 1994: Part 2 (Continued)
(Estimates in Trillion Btu)

End-Use Categories	Total	Net Electricity ^a	Residual Fuel Oil	Distillate Fuel Oil and Diesel Fuel ^b	Natural Gas ^c	LPG	Coal (excluding Coal Coke and Breeze)	Other ^d	RSE Row Factors
South Census Region									
RSE Column Factors:	NF	0.5	1.3	1.5	0.8	1.2	1.2	NF	
TOTAL INPUTS	8,357	1,135	176	55	3,271	28	530	3,164	3.8
Indirect Uses-Boiler Fuel	-	12	121	19	1,419	3	407	-	5.7
Direct Uses-Total Process	-	901	46	19	1,447	13	115	-	5.5
Process Heating	-	108	45	10	1,345	11	W	-	8.4
Process Cooling and Refrigeration	-	68	-	-	17	W	0	-	17.4
Machine Drive	-	810	1	8	64	W	W	-	13.6
Electro-Chemical Processes	-	113	-	-	-	-	-	-	1.2
Other Process Use	-	4	-	-	22	-	-	-	20.6
Direct Uses-Total Nonprocess	-	179	8	15	153	8	5	-	8.6
Facility Heating, Ventilation, and Air Conditioning * ..	-	93	W	1	72	2	2	-	9.9
Facility Lighting	-	68	-	-	-	-	-	-	1.1
Facility Support	-	17	W	-	7	W	0	-	12.6
Onsite Transportation	-	1	-	12	-	8	-	-	4.2
Conventional Electricity Generation	-	-	W	-	269	W	3	-	9.4
Other Nonprocess Use	-	1	-	1	4	-	0	-	22.6
End Use Not Reported	3,288	43	2	3	52	2	4	3,164	15.3
West Census Region									
RSE Column Factors:	NF	0.8	0.9	1.8	0.9	1.1	1.1	NF	
TOTAL INPUTS	2,230	389	38	32	719	37	131	886	4.7
Indirect Uses-Boiler Fuel	-	6	20	5	286	8	50	-	9.8
Direct Uses-Total Process	-	302	12	13	320	24	80	-	8.4
Process Heating	-	36	W	6	305	21	W	-	7.3
Process Cooling and Refrigeration	-	18	0	-	2	W	0	-	12.9
Machine Drive	-	162	W	5	9	W	W	-	9.2
Electro-Chemical Processes	-	83	-	-	-	-	-	-	1.1
Other Process Use	-	3	-	Q	5	-	0	-	27.9
Direct Uses-Total Nonprocess	-	68	W	13	89	4	W	-	8.4
Facility Heating, Ventilation, and Air Conditioning * ..	-	31	W	Q	35	-	W	-	16.9
Facility Lighting	-	29	-	-	-	-	-	-	1.3
Facility Support	-	7	W	-	6	W	0	-	17.2
Onsite Transportation	-	1	-	9	-	3	-	-	5.3
Conventional Electricity Generation	-	-	0	2	45	W	W	-	8.1
Other Nonprocess Use	-	-	0	-	2	W	0	-	23.7
End Use Not Reported	930	13	W	2	24	1	W	886	15.3

^a "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out. It does not include electricity inputs from onsite cogeneration or generation from combustible fuels because that energy has already been included as generating fuel (for example, coal).

^b Includes Nos. 1, 2, and 4 fuel oils and Nos. 1, 2, and 4 diesel fuels.

^c "Natural Gas" includes natural gas obtained from utilities, local distribution companies, and any other supplier(s), such as producers, brokers, and marketers.

^d "Other" includes net steam (the sum of purchases, generation from renewables, and net transfers) and other energy that respondents indicated was used to produce heat and power.

* Excludes steam and hot water.

NF=No applicable RSE row/column factor.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

- Estimation of energy input is not applicable.

Notes: - To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. - Totals may not equal sum of components because of independent rounding. - The estimates presented in this table are for the total consumption of energy for the production of heat and power, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced onsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. - Allocations to specific end uses are made on the basis of reasonable approximations by respondents.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy End Use and Integrated Statistics Division, Form EIA-846, "1994 Manufacturing Energy Consumption Survey."